REMARKS

The present application was filed on October 5, 2005 with claims 1 through 24. Claims 14-17 were cancelled in the Amendment and Response to Office Action dated October 7, 2008. Claims 1-13 and 18-24 are presently pending in the above-identified patent application.

5 Claim 9 is amended herein.

In the Office Action, the Examiner rejected claims 1, 4, 7, 8, 18, 21, and 23 under 35 U.S.C. §103(a) as being unpatentable over Muller et al. (United States Patent No. 6,021,132) in view of Sindhu et al. (United States Patent No. 7,116,660), and rejected claims 9 and 13 under 35 U.S.C. §103(a) as being unpatentable over Muller et al. in view of Manning et al. (United 10 States Patent No. 6,088,736).

Independent Claims 1 and 18

Independent claims 1 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Muller et al. in view of Sindhu et al. Regarding claim 1, the Examiner asserts that Sindhu discloses storing in said shared memory (FIG. 9, shared memory), wherein said 15 shared memory comprises two or more buffers (FIG. 9: M (0), M (1), M (2), M (3), M (4), M (5), M (6), M (7)), at least a portion of a packet in contiguous banks (FIG. 9, banks 902) of a first buffer (M (0)) of said two or more buffers, wherein each of said banks (FIG. 9, banks 902) comprises portions, wherein each of said two or more buffers comprises a portion from each of said plurality of banks, and wherein each of said buffers identifies an address of a location in 20 each of said banks (col. 14, lines 30-35). In the Advisory Action, the Examiner asserts that Muller discloses where each of said two or more buffers comprises a portion from each of said plurality of banks (col. 8, lines 43-45; the buffers may be further subdivided into a number of memory lines).

Applicant notes that Sindhu teaches that FIG. 9 illustrates a *reservation table 508* 25 that "includes a *plurality of columns 900, one for each memory bank 105 in global data buffer 104, a plurality of rows 902*" (col. 11, lines 22-26; emphasis added) and that "*each row represents a set of read requests*" (col. 11, lines 26-27; emphasis added). Thus, contrary to the Examiner's assertion, FIG. 9 does *not* represent a shared memory (as defined in the context of the present invention and is well known in the art), the columns of table 508 are *not* buffers, and 30 the rows of table 508 are *not* banks. Furthermore, Sindhu's teaching at col. 14, lines 30-35,

refers to memory banks 105 of FIG. 2B (see, cols. 12-14); Sindhu's teaching at col. 14, lines 30-35, does *not* refer to the rows 902 of table 508.

Furthermore, as the Examiner acknowledges, Muller teaches that the buffers may be further *subdivided into a number of memory lines*; Muller does *not* disclose or suggest where each of the buffers *comprise a portion from **each of said plurality of banks***.

Neither Muller nor Sindhu, alone or in combination, disclose or suggest that a *shared memory* comprises two or more *buffers* and two or more *banks*, wherein **each of the banks comprises portions**, wherein **each of the two or more buffers comprises a portion from each of the plurality of banks**, and wherein *each of the buffers identifies an address of a location in each of the banks*.

Thus, Muller et al. and Sindhu et al., alone or in combination, do not disclose or suggest wherein said shared memory comprises two or more buffers and two or more banks, at least a portion of a packet in contiguous banks of a first buffer of said two or more buffers, wherein each of said banks comprises portions, wherein each of said two or more buffers comprises a portion from each of said plurality of banks, and wherein each of said buffers identifies an address of a location in each of said banks, as required by independent claims 1 and 18.

Independent Claim 9

Independent claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Muller et al. in view of Manning et al. In particular, the Examiner asserts that Muller discloses maintaining a buffer usage count for at least one of said buffers in a shared memory (Abstract; col. 7, lines 25-27; and col. 9, lines 35-37). The Examiner asserts that Muller discloses a counter for monitoring a buffer usage count (Abstract; col. 2, lines 25-25; usage count) provides an indication of the input (write) over all packets in said at least one of said buffers of the number of output ports (two output ports) toward which each of said packet is destined (col. 12, lines 27-31). The Examiner acknowledges that Muller is silent to disclosing a "sum over all packet in said at least one of said buffer," but asserts that Manning discloses (that a) buffer provides an indication of the sum (col. 6, lines 20-35; total number of cells) over all packets in said at least one of said buffers of the number of output ports toward which each of said packets is destined, wherein said at least one of said buffers contains two or more packets (col. 6, lines 25-35; and col. 13, lines 15-25).

Applicants note that independent claim 9 has been amended to require adding said at least one of said buffers to a free buffer list if a release of said at least one of said buffers does not occur within a predefined period of time. Support for this amendment can be found on page 17, line 13, to page 18, line 12, of the originally filed disclosure. Applicants note that neither Muller nor Manning disclose or suggest adding said buffer to a free buffer list if a release of the buffer does not occur within a predefined period of time.

Thus, Muller and Manning, alone or in combination, do not disclose or suggest wherein said buffer usage count provides an indication of a sum over all packets in said at least one of said buffers of a number of output ports toward which each of said packets is destined, wherein said at least one of said buffers contains two or more packets and wherein at least one of the packets is destined for more than one output port; and adding said at least one of said buffers to a free buffer list if a release of said at least one of said buffers does not occur within a predefined period of time, as required by independent claim 9, as amended.

<u>Dependent Claims 2-8, 10-14 and 19-24</u>

Claims 2-8, 10-14, and 19-24 are dependent on independent claims 1, 9, and 18, respectively, and are therefore patentably distinguished over the cited prior art, alone or in combination, because of their dependency from amended independent claims 1, 9, and 18 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

<u>Conclusion</u>

All of the pending claims following entry of the amendments, i.e., claims 1-13 and 18-24, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,

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